



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. Box 1450
ALEXANDRIA, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 23

Application Number: 09/172,435
Filing Date: October 14, 1998
Appellant(s): MORRIS ET AL.

Jack P. Friedman
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11/4/03.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

After consideration of the applicant's arguments regarding the second issue, the rejection of claim 22 is withdrawn.

Claim 22 is allowed.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

The appellant's statement in the brief that certain claims do not stand or fall together is not agreed with because the rejection of claim 22 has been withdrawn. This appeal contains only Group I, claims 1, 4-7, and 9-21 which stand or fall together.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,621,840	Kawamura et al.	4-1997
5,249,053	Jain	9-1993

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 4-7, and 9-21 are rejected under 35 U.S.C. 103(a). This rejection is set forth in prior Office Action, Paper No. 17.

(11) Response to Argument

A. The Appellant argues that placing the I frames at predetermined positions in the video stream does not place the I frames at fixed periodically repeated intervals and therefore does not place the additional data block (or entry packets) at fixed periodically repeated intervals (i.e. there is not a constant separation between additional data blocks).

The Appellant suggest that Kawamura et al is suggesting that the positions of the I frames is established before compression. The examiner respectfully disagrees. If the

positions of the I pictures was previously established, then no calculation would be needed to determine the location of the I pictures. Kawamura et al states, "In the case where compression of fixed rate is being carried out with respect to video data, since I pictures cyclically appear at predetermined positions, corresponding position is determined by calculation, thereby making it possible to provide access thereto." The examiner believes that Kawamura et al is stating that the I pictures cyclically appear at predetermined positions as a result of the fixed compression rate, thereby allowing the positions of the I pictures to be determined by calculation. The Appellant suggest that the number of B and/or P frames disposed between I frames (or in a GOP) is variable. However, such an interpretation is contradictory to ability to calculate the position of the I picture for trick play. To calculate the position of I pictures if the number of B frames and/or P frames in a GOP was variable, the number of P and B frames in the GOP would have to be determined, which require too much time (or too many operations) for trick play (i.e. the number of P and/or B frames would have to be counted for a GOP; the amount of data in the GOP would then have to calculated; and then the position of the next I frame would have to be calculated by adding the size of the GOP to the position of the current I frame). Since high speed searching requires the position of the next or previous I picture to be determined quickly and easily, the Appellant's interpretation of Kawamura et al appears to be inconsistent with the trick play operation because several calculations are needed before the position of the next I frame can be determined. The examiner believes that the number of P and B frames in a GOP is fixed, and the size of the frames is set. For example, Fujinami et al (5,504,585, cited in

PTO-892 attached to paper no. 7) shows that each GOP has a set number of I, P, and B pictures with a set size for each picture type (fig. 20). The position of the I pictures can quickly and easily be determined because the size of each GOP is fixed. If the size of a GOP is added or subtracted from the position of the current I picture, then the position of the next or previous I picture is determined (note: only a single calculation is needed to determine position for trick play). Since Kawamura et al teaches inserting the additional data packets (or entry packets) immediately before the video data including the I picture and the I pictures cyclically appear at predetermined positions when the compression rate is fixed, adding entry packets to a video signal with a fixed compression rate would result in the entry packets being added a fixed periodically repeated intervals.

B. The Appellant argues that imposing a fixed compression rate on Kawamura would destroy the invention because the invention is based on the assumption of a variable compression rate.

Kawamura et al states that the invention is intended to allow rapidly determining the access point of video data for quick search at a desired speed. The examiner acknowledges that Kawamura et al does not teach the application of entry point packets to video data with a fixed compression rate. However, providing entry point packets in video data with a fixed compression rate allows access points of video data to be quickly located for trick play.

C. The Appellant argues that the positions of the additional data blocks would have to be calculated instead of the I frames.

The Appellant cites Kawamura et al (col. 7, lines 38-42 and col. 9, lines 16-23) for support. Kawamura et al discloses that the invention applies to data encoded at a variable rate (col. 1, lines 7-17). The examiner has suggested the use of additional data blocks for video data encoded at a fixed rate; therefore, the cited portions clearly do not apply. The cited portions reference the recording operation wherein the video and audio signal are encoded at variable rates (col. 7, lines 60-67).

The cited portions disclose that the determination of future entry points (or I frames) cannot be determined (because the data has not been coded yet). After encoding is completed the location of all the entry points can be determined and the entry point packets are then completely recorded (col. 9, lines 55 – col. 10, line 25).

D. The Appellant argues that the elimination of circuitry or extra memory required to perform the calculation is outweighed by the advantages of a variable compression rate.

The modifications that the examiner suggest is an improvement over the prior art discloses by Kawamura et al (i.e. a fixed compression device that requires calculations to be performed to provided trick play), not the invention of Kawamura et al. The examiner is suggesting if the device requires a fixed compression rate, the it would be desirable to have entry point packets so that the position information does not have to be calculated.

The Appellant suggest that there would be no situation in which a fixed compression rate would be more desirable than a variable compression rate; therefore, the modification suggested by the examiner would not be obvious. A fixed compression rate allows the recording capacity needed to record a given amount of data to be more easily predicted than with a variable compression rate; and a fixed compression rate produces a signal with a constant bit rate.

Issue 2

E. The Appellant argues that the reasoning presented in the rejection of claim 22 is inconsistent with the arguments presented in the rejection of the previous claims.

The rejection of claim 22 has been withdrawn.

For the above reasons, it is believed that the rejections should be sustained.

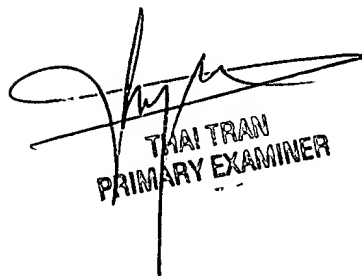
Respectfully submitted,



PC
January 26, 2004

Conferees
Andrew Christensen
Thai Tran

CORPORATE PATENT COUNSEL
U S PHILIPS CORPORATION
580 WHITE PLAINS ROAD
TARRYTOWN, NY 10591



THAI TRAN
PRIMARY EXAMINER



ANDREW CHRISTENSEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600